

## CLAIMS

1. Circuit for the generation of Electric Power induced to bear opposite polarity in the Pulsating D.C. Power Supply, whereby electric power of opposite polarity is generated the moment the D.C. pulsating power that is being delivered is suspended, by means of an induction device in series or in parallel with the load, or alternatively by means of an LC parallel circuit which is in series or in parallel with the load, and the power of opposite polarity thus generated is fed to the load.

2. Circuit for the generation of Electric Power induced to bear opposite polarity in the Pulsating D.C. Power Supply according to claim 1, further featuring a sub-circuit by having the primary winding of the transformer in series with the pulsating D.C. power supply, and comprising structurally essentially:

- D.C. pulsating power supply PPS101: yielding pulsating D.C. currents from rectification of A.C. source or D.C. source gone through linear control or switching control;

- Transformer T101: in the form of a cored or coreless transformer comprising coil windings or stacked coils which account for a primary winding WP and for a secondary winding WS respectively; with the primary winding WP made in series with the power supply, and the secondary winding WS made optionally in series with a Current Limiting Resistor R101, for paralleling across both terminals of the power supply having been made in series with a primary winding WP, the power supply being of a pulsating D.C. mode PPS101; or the secondary coil WS of the transformer is firstly made in parallel with the pulsating D.C. power supply PPS101,

followed by allowing for serial connection of a primary coil WP, bound for the load; it is to be noted that the polarity correlation between the primary coil WP and the secondary coil WS of said transformer T101 is such that a reduction or cutoff of the causal D.C. power will bring about power of the opposite polarity on the load side;

- Load LD101: in the form of a rechargeable secondary cell or electroplating bath, or electrolytical processing electrode together with working objects, or still those necessitating the input of power of the opposite polarity in the event of power interruption or of a reduction in power supply which is necessarily pulsating D.C. power supply;
- Conduction Contacts or Plug/Socket Assembly P0: being as such composed from electromechanical components, and being optional, with one terminal connected to the charging power supply and relevant circuits on the power supply side, and the other terminal for coupling purpose going to the load side;
- Blocking Diode CR101: being structurally solid state diode in forward series with the input port of the power supply to prevent power of the opposite polarity once generated from running back to the power supply, being optional in the configuration for execution.

3. Circuit for the Generation of Electric Power induced to bear opposite polarity in the Pulsating D.C. power supply according to claim 1, further comprising a sub-circuit by paralleling an inductor therewith, and comprising essentially:

- Pulsating D.C. power supply PPS101: generated in a controlled state by linear or switching elements, from rectified A.C.

or D.C. power supply;

- Inductance L101: in the form of cored or coreless inductors wound in coil or stacked to formation, for parallel across both terminals of the power supply, to be optionally in series with a current limiting resistor R101;
  - Load LD101: in the form of a rechargeable secondary cell or electroplating bath, or electrolytical processing electrode together with working objects, or still those necessitating the input of power of the opposite polarity in the event of power interruption or of a reduction in power supply which is necessarily pulsating D.C. power supply;
  - Conduction Contacts or Plug/Socket Assembly P0: being as such composed from electromechanical components, and being optional, with one terminal connected to the charging power supply and relevant circuits on the power supply side, and the other terminal for coupling purpose going to the load side;
  - Blocking Diode CR101: being structurally solid state diode in forward series with the input port of the power supply to prevent power of the opposite polarity once generated from running back to the power supply, being optional in the configuration for execution.
4. Circuit for the Generation of Electric Power induced to bear opposite polarity in the Pulsating D.C. power supply according to claim 3, whereof the inductor further forms a sub-circuit by paralleling a capacitor, and comprising essentially:
- Pulsating D.C. Power Supply PPS101: generated in a controlled state by linear or switching elements from rectified A.C. or D.C. power source;

- Inductance L101: in the form of cored or coreless inductors wound in coil or stacked to formation, for parallel across both terminals of the power supply, to be optionally in series with a current limiting resistor R101;
- 5 - Capacitor C101: in parallel with the inductor L101 to interact with the inductor L101 and to respond resistively in accord with the frequency of the pulsating D.C. power supply;
- Load LD101: in the form of a rechargeable secondary cell or electroplating bath, or electrolytical processing electrode together with working objects, or still those necessitating the input of power of the opposite polarity in the event of power interruption or of a reduction in power supply which is necessarily pulsating D.C. power supply;
- 10 - Conduction Contacts or Plug/Socket Assembly P0: being as such composed from electromechanical components, and being optional, with one terminal connected to the charging power supply and relevant circuits on the power supply side, and the other terminal for coupling purpose going to the load side;
- 15 - Blocking Diode CR101: being structurally solid state diode in forward series with the input port of the power supply to prevent power of the opposite polarity once generated from running back to the power supply, being optional in the configuration for execution.
- 20 5. Circuit for the Generation of Electric Power induced to bear opposite polarity in the Pulsating D.C. power supply according to claim 1, incorporating further a sub-circuit formed by serial connection of inductors, and comprising essentially:
- 25 - Pulsating D.C. power supply PPS101: generated in a controlled
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state by linear or switching elements, from rectified A.C. or from D.C. power supply;

- Inductor L101: in the form of cored or coreless inductors wound in coil or stacked to formation, for serial connection way between the output terminal of the power supply and the load LD101;
- Backflow Resistor R500: composed of resistive elements, paralleled across the positive terminal of the pulsating D.C. power supply PPS101 which is in connection with the inductor L101, and the negative terminal of the same pulsating D.C. power supply PPS101, to allow for passage of the power of opposite polarity;
- Blocking Diode CR101: being solid state diode in forward series with the input port of the power supply to prevent power of the opposite polarity once generated from running back to the power supply, being optional in the configuration for execution;
- Load LD101: in the form of a rechargeable secondary cell or electroplating bath, or electrolytical processing electrode together with working objects, or still those necessitating the input of power of the opposite polarity in the event of power interruption or of a reduction in power supply which is necessarily pulsating D.C. power supply;
- Conduction Contacts or Plug/Socket Assembly P0: being as such composed from electromechanical components, and being optional, with one terminal connected to the charging power supply and relevant circuit on the power supply side, and the other terminal for coupling purpose going to the load side.

6. Circuit for the Generation of Electric Power induced to bear

opposite polarity in the Pulsating D.C. power supply according to claim 5, further incorporating an LC parallel sub-circuit which consists of inductor and capacitor, the totality being in series with the Main circuitry, and comprising essentially:

- Pulsating D.C. power supply PPS101: generated in a controlled state by linear or switching elements from rectified A.C. or from D.C. source;
- Inductor L101: in the form of cored or coreless inductors wound in coil or stacked to formation, for serial connection way between the output terminal of the power supply and the load LD101;
- Capacitor C101: in parallel with the inductor L101 to interact with the inductor L101 and to respond resistively in accord with the frequency of the pulsating D.C. Power Supply;
- Backflow Resistor R500: composed of resistive elements, paralleled across the positive terminal of the pulsating D.C. power supply PPS101 which is in connection with the inductor L101, and the negative terminal of the same pulsating D.C. power supply PPS101, to allow for passage of the power of opposite polarity;
- Blocking Diode CR101: being solid state diode in forward series with the input port of the power supply to prevent power of the opposite polarity once generated from running back to the power supply, being optional in the configuration for execution;
- Load LD101: in the form of a rechargeable secondary cell or electroplating bath, or electrolytical processing electrode together with working objects, or still those necessitating the input of power of the opposite polarity

in the event of power interruption or of a reduction in power supply which is necessarily pulsating D.C. power source;

- Conduction Contacts or Plug/Socket Assembly P0: being as such composed from electromechanical components, and being optional, with one terminal connected to the charging power supply and relevant circuit on the power supply side, and the other terminal for coupling purpose going to the load side.

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